

A. A. D. T.	ANNUAL AVERAGE DAILY TRAFFIC	CR.	CRUSHED OR CREEK
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	CRS.	COURSE
AB.	ABRUPT	CS	CURVE TO SPIRAL
A. C.	ALUMINUM CAP OR ASPHALT CEMENT	C. S. F.	COMBINATION SCALE FACTOR
ADD. EXC.	ADDITIONAL EXCAVATION	CSP	CORRUGATED STEEL PIPE
ADJ.	ADJUSTED	CSPA	CORRUGATED STEEL PIPE ARCH
A. D. T.	AVERAGE DAILY TRAFFIC	CT.	COURT
AGG.	AGGREGATE	C. T. B.	CEMENT TREATED BASE
AH.	AHEAD	CTR.	CENTER
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	CTS	CRUSHED TOP SURFACING
APP.	APPROACH	CULV.	CULVERT
APPL.	APPLICATION	D	DISTRIBUTION OF TRAFFIC
APPROX.	APPROXIMATE	DBL.	DOUBLE
ASPH.	ASPHALT	D. D.	DOWN DRAIN
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	DE	DIFFERENCE IN ELEVATION
AVE.	AVENUE	DEFL.	DEFLECTION
AVG.	AVERAGE	DESC.	DESCRIPTION
AZ.	AZIMUTH	DEST.	DESTROYED
BAL.	BALANCE	DET.	DETOUR OR DETAIL
BBL.	BARREL	DETC.	DETECTOR
B. C.	BRASS CAP	D. H.	DRILL HOLE
B. C. R.	BEGIN CURB RETURN	D. H. V.	DESIGN HOURLY VOLUME
B. E.	BRIDGE END	D. I.	DROP INLET
BEG.	BEGIN	DIA.	DIAMETER
BIT.	BITUMINOUS OR BITUMEN	DIST.	DISTANCE OR DISTRICT
BK.	BACK OR BANK	DN.	DOWN
BLDG.	BUILDING	DP.	DEEP
BLK.	BLOCK	DR.	DRAIN OR DRIVE
B. L. M.	U. S. BUREAU OF LAND MANAGEMENT	DT.	DITCH
BLVD.	BOULEVARD	DTL.	DETAILED
B. M.	BENCH MARK	DWG.	DRAWING
BNDRY.	BOUNDARY	DY.	DAYLIGHT
BOT.	BOTTOM	E	EAST OR EXTERNAL DISTANCE
BR.	BRIDGE	EB	EASTBOUND
B. R.	BASE OF RAIL	E. C. R.	END CURB RETURN
BRG.	BEARING	EDM	ELECTRONIC DISTANCE MEASUREMENT
B. S.	BACKSIGHT	E. G.	EDGE OF GUTTER
B. S. T.	BITUMINOUS SURFACE TREATMENT	ELEV. OR EL.	ELEVATION
B. W. FE.	BARBED WIRE FENCE	ELONG.	ELONGATED
C	CUT	ELY.	EASTERLY
C/A	CONTROL OF ACCESS	EMB.	EMBANKMENT
CALC.	CALCULATED	EMUL.	EMULSIFIED
CAP	CORRUGATED ALUMINUM PIPE	E. O.	EDGE OF OIL
CATV	CABLE TV	E. P.	EDGE OF PAVEMENT
CB.	CURB	EQ.	EQUATION
C. B.	CATCH BASIN	E _s	EXTERNAL DISTANCE (WITH SPIRALS)
C. B. W.	CONCRETE BLOCK WALL	E. S.	EDGE OF SHOULDER
C. C.	CLOSING CORNER	ESMT. OR EASE.	EASEMENT
CDTN.	CONDITION	ETW	EDGE OF TRAVELED WAY
CEM.	CEMENT	EW.	END WALL
C&G	CURB & GUTTER	EX.	EXISTING
CH.	CHANNEL OR CHAIN	EXC.	EXCAVATION
CH. CH.	CHANNEL CHANGE	EXT.	EXTENSION
CHD.	CHORD	EXWY.	EXPRESSWAY
CHIS. "x"	CHISELED CROSS	F	FILL
C. I.	CURB INLET	F. A.	FEDERAL AID
CIR.	CIRCLE	F. C.	FLOOD CONTROL
CL.	CLASS OR CLEARANCE	FD.	FOUND
CL-1.2F, 1.5F	CHAIN LINK FENCE (W/ HEIGHT)	FDN.	FOUNDATION
C/L OR $\frac{C}{L}$	CENTERLINE	FE.	FENCE
CMP	CORRUGATED METAL PIPE	FERT.	FERTILIZER
C. N.	CONCRETE NAIL	FETS	FLARED END TERMINAL SECTION
CO.	COUNTY OR COMPANY	F. G.	FINISHED GRADE
C. O.	CLEAN OUT	F. G. S.	FINISHED GRADE STAKE
COMP.	COMPACTION		
CONC.	CONCRETE		
COND. (TEL.)	CONDUIT (SPECIFY TYPE)		
CONN.	CONNECTION		
CONST.	CONSTRUCTION		
COR.	CORNER		
CORR.	CORRECTED OR CORRUGATION		
COV.	COVER		
C. P.	CATCH POINT		

F. H.	FIRE HYDRANT	mm ²	SQUARE MILLIMETER
FIN.	FINISH	MATL.	MATERIAL
FL.	FLUSH	MAX.	MAXIMUM
F. L.	FLOW LINE	MC	MEDIUM CURING
F. O.	FIBER OPTIC CABLE	MEAS.	MEASURED
F. P.	FENCE POST	MED.	MEDIAN
FR. RD.	FRONTAGE ROAD	MH.	MANHOLE
F. S.	FORESIGHT	MIN.	MINIMUM, MINERAL OR MINUTE
FTG.	FOOTING	MISC.	MISCELLANEOUS
FUT.	FUTURE	MKR.	MARKER
FWY.	FREEWAY	M. L.	MAINLINE
		MNCPL.	MUNICIPAL
g	GRAM	M. O.	MID ORDINATE
G	GRADING	MON.	MONUMENT
GA.	GAGE	MPC	MID-POINT OF CURVE
GALV.	GALVANIZED	N	NORTH
GAR.	GARAGE	NB	NORTHBOUND
GEOD.	GEODETIC	N. C.	NORMAL CROWN
G. L.	GAS LINE	N. E.	NORTHEAST
G. L. O.	GENERAL LAND OFFICE	N. G.	NATURAL GAS
GPS	GLOBAL POSITIONING SYSTEM	N. G. S.	NATIONAL GEODETIC SURVEY
GR.	GRADE	NL.	NAIL
G. R.	GUARDRAIL	NLY.	NORTHERLY
GRND.	GROUND	NO. OR #	NUMBER
GR. SEP.	GRADE SEPARATION	N. W.	NORTHWEST
G. S.	GRAVEL SURFACING	N. W. EL.	NORMAL WATER ELEVATION
GSP	GALVANIZED STEEL PIPE		
GTR.	GUTTER	O. OR O/S	OFFSET
G. V.	GAS VALVE	O. C.	ON CENTERS OR OVERHEAD CROSSING
ha	HECTARE	O. D.	OUTSIDE DIAMETER
HDWL.	HEADWALL	O. G.	OLD GROUND OR ORIGINAL GROUND
HG.	HEADGATE	OH.	OVERHANG OR OVERHEAD
H. I.	HEIGHT OF INSTRUMENT	O' PASS	OVERPASS
HO.	HOUSE		
HOR.	HORIZONTAL	P	POWER CABLE OR PIPE
H. P.	HINGE POINT	P. OR PG.	PAGE
HT.	HEIGHT	PAVT.	PAVEMENT
H&T	HUB & TACK	P. B.	PULL BOX
H. W.	HIGH WATER	PC	POINT OF CURVE (BEGINNING)
HWY.	HIGHWAY	PCC	POINT OF COMPOUND CURVE OR PORTLAND CEMENT CONCRETE
I	INTERSTATE	P. C. S.	PROJECT CONTROL SYSTEM
I. C.	INCIDENTAL CONSTRUCTION	P. E.	PRELIMINARY ENGINEERING
I. D.	INSIDE DIAMETER	PEN.	PENETRATION
I. E.	INVERT ELEVATION	PERF.	PERFORATED
INC.	INCORPORATED OR INCREMENT	PI	POINT OF INTERSECTION
INCL.	INCLUDED	PL.	PLACE, PLATE OR PLANT
INSTR.	INSTRUMENT	P. L.	PROPERTY LINE
INT.	INTERSECTION	PLAS.	PLASTIC
INTCH.	INTERCHANGE	P. M.	PRINCIPAL MERIDIAN OR PUNCH MARK
INV.	INVERT	P. M. B.	PLANT MIX BASE
I. P.	IRON PIN	P. M. P.	PERFORATED METAL PIPE
IRR.	IRRIGATION	PMS	PLANT MIX SURFACING
I. R. T. S.	INTERSECTING ROADWAY TERMINAL SECTION	PMT.	PERMIT
JCT.	JUNCTION	PQC	POINT ON CURVE
J. P.	JOINT USE POLE	POL	POINT ON LINE
		POS	POINT ON SPIRAL
kg	KILOGRAM	POST	POINT ON SEMI-TANGENT
km	KILOMETER	POT	POINT ON TANGENT
		POVC	POINT ON VERTICAL CURVE
		PP	POWER POLE
L	LENGTH OF CURVE, LITER OR ANGLE IRON	PP.	PAGES
L _c	LENGTH OF CIRCULAR CURVE	PREST.	PRESTRESSED
L. C.	LONG CHORD	PRIM.	PRIMARY
L. D.	LOOP DETECTOR	PROC.	PROCESSING
LENG.	LENGTH OR LENGTHEN	PROJ.	PROJECT OR PROJECTED
LN.	LANE		
L _s	LENGTH OF SPIRAL		
L. S.	LAND SURVEYOR		
LT.	LEFT		
m	METER		
m ²	SQUARE METER		
m ³	CUBIC METER		
mm	MILLIMETER		

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PROT.	PROTECT, PROTECTOR OR PROTECTION	S. W.	SOUTHWEST OR SIDEWALK
PT	POINT OF TANGENT (END OF CURVE)		
PT.	POINT	+	METRIC TON
PTW	PRESENT TRAVELED WAY	T	TOWNSHIP, TANGENT LENGTH OR PERCENT TRUCKS
PVC	POLYVINYL CHLORIDE		
PVT.	PRIVATE	TAN.	TANGENT
PWR.	POWER (LINES)	T. B. C.	TOP BACK OF CURB
		T. B. M.	TEMPORARY BENCH MARK
		TBR.	TIMBER
Q	PEAK DISCHARGE (WATER)	TEL.	TELEPHONE
QTY.	QUANTITY	TEL. C.	TELEPHONE CABLE
		TELG.	TELEGRAPH
R	RANGE, RADIUS OR RISE	TEL. P.	TELEPHONE POLE
RACET	ROAD APPROACH CULVERT END TREATMENT	TEMP.	TEMPERATURE OR TEMPORARY
RAD. PT.	RADIUS POINT	THK.	THICKNESS
R _c	SPIRAL CURVE RADIUS	TK.	TACK
RC	RAPID CURING	TOPOG.	TOPOGRAPHIC
RCB	REINFORCED CONCRETE BOX	T. P.	TURNING POINT
RCP	REINFORCED CONCRETE PIPE	TR.	TRACT
RCPA	REINFORCED CONCRETE PIPE ARCH	TRANS.	TRANSMISSION LINE OR TRANSITION
RD.	ROAD	TRAV.	TRAVERSE
RDL.	RADIAL	TRIA.	TRIANGULATION
RDWY.	ROADWAY	T _s	LENGTH OF TANGENT (CURVE WITH SPIRALS)
REC.	RECORD	TS	TANGENT TO SPIRAL
REF.	REFERENCE	TT	TRANSMISSION TOWER
REINF.	REINFORCEMENT	TYP.	TYPICAL
RET. W.	RETAINING WALL		
RIV.	RIVER	U	UNIT
R. M.	REFERENCE MONUMENT	U. G.	UNDERGROUND
R. P.	REFERENCE POINT OR REFERENCE POST	UNCL.	UNCLASSIFIED
R. R.	RAILROAD	U' PASS	UNDERPASS
RT.	RIGHT OR ROUTE	U. S. C. & G. S.	U. S. COAST & GEODETIC SURVEY
RTE.	ROUTE	U. S. C. E.	U. S. CORPS OF ENGINEERS
R/W	RIGHT OF WAY	U. S. F. S.	U. S. FOREST SERVICE
RY.	RAILWAY	U. S. G. S.	U. S. GEOLOGICAL SURVEY
		U. S. P. L. S.	U. S. PUBLIC LAND SURVEY
S	RATE OF FULL SUPERELEVATION, SPAN OR SOUTH	V	DESIGN SPEED OR VELOCITY
SA.	SATELLITE (FOR TRAVERSE USE)	V. A. B. M.	VERTICAL ANGLE BENCH MARK
SAN.	SANITARY SEWER	VC	VERTICAL CURVE
SB	SOUTHBOUND	VC CORR.	VERTICAL CURVE OFFSET CORRECTION
SC	SPIRAL TO CURVE OR SLOW CURING	V. C. M.	VERTICAL CONTROL MONUMENT
SCH.	SCHEDULE	V. C. P.	VITRIFIED CLAY PIPE
SDWK.	SIDEWALK	VEH.	VEHICULAR
S. E.	SOUTHEAST	VERT. OR VT.	VERTICAL
SEC.	SECTION, SECOND OR SECONDARY	VIT.	VITRIFIED
SEL.	SELECT	V. P.	VENT PIPE
S. G. OR SUBGR.	SUBGRADE	VPC	VERTICAL POINT OF CURVE
SH.	SHOULDER	VPI	VERTICAL POINT OF INTERSECTION
SHT.	SHEET	VPT	VERTICAL POINT OF TANGENCY
SING.	SINGLE		
SIP.	SIPHON	W	WEST
S. L. D.	SEA LEVEL DATUM	W/	WITH
SLOT. DR.	SLOTTED DRAIN	WB	WESTBOUND
SLP. STK.	SLOPE STAKE	W. C.	WITNESS CORNER
SLY.	SOUTHERLY	W. L.	WATER LINE
S. P.	STAND PIPE OR STATE PLANE	WLY.	WESTERLY
SPEC. PROV.	SPECIAL PROVISION	W/O	WITHOUT
S. P. H. P.	STEEL PIPE, HIGH PRESSURE	W. P.	WING POINT
SPK.	SPIKE	W. S.	WATER SERVICE OR WARPED OR VARIABLE SLOPE
SQ.	SQUARE	WT.	WEIGHT
SS	EMULSIFIED ASPHALT	W. T.	WATER TABLE
SSPP	STRUCTURAL STEEL PLATE PIPE	W. V.	WATER VALVE
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH	W. W.	WING WALL OR WOVEN WIRE
ST	SPIRAL TO TANGENT		
ST.	STREET	XING.	CROSSING
STA.	STATION	XSEC.	CROSS-SECTION
STD.	STANDARD		
SPEC.	SPECIFICATION		
STK.	STAKED OR STAKE		
STL.	STEEL		
STM.	STORM DRAIN		
STPD.	STAMPED		
STR.	STRUCTURE OR STRAIGHT		
SUBD.	SUBDIVISION		
SURF.	SURFACE OR SURFACING		
SURV.	SURVEY		

TITLE SHEET

	PRIMARY ROAD **
	PRIMITIVE ROAD
	PROPOSED ROAD
	GRADED ROAD
	BLADED ROAD
	PRIMITIVE ROAD
	GRAVELED ROAD (CADD *)
	PAVED ROAD
	FEDERAL AID ROUTING (ON EXISTING ROAD)
	FEDERAL AID ROUTING (NON-EXISTING ROAD)
	INTERCHANGE
	STRUCTURE
	FREE FERRY
	TOLL FERRY
	HIGHWAY TUNNEL
	PASS
	RAILROAD
	RESERVATION LINE
	STATE & NATIONAL LINE
	COUNTY LINE
	TOWNSHIP & SECTION LINE
	INTERSTATE
	U. S. HIGHWAY
	STATE HIGHWAY (CADD *)
	CITY OR TOWN
	AIR FIELD
	DAM
	BUILDING OR HOUSE
	BRIDGE

** PRIMARY ROADS ARE 2.03 mm WIDE. ALL OTHERS ARE 1.27 mm WIDE.

PROFILE

	FLOWLINE AT CULVERT
	FLOWLINE AT IRRIGATION SYPHON
	FLOWLINE AT CONCRETE BOX CULVERT

CROSS SECTIONS

	POWER POLE (NO. OF WIRES AND VOLTAGE)
	TELEPHONE POLE (NO. OF WIRES)
	TELEGRAPH POLE (NO. OF WIRES)
	GUY POLE
	GUY AND ANCHOR

PLAN

	STATE & NATIONAL LINE
	COUNTY LINE
	CITY OR TOWN BOUNDARIES
	TOWNSHIP LINE
	SECTION LINE (SHOWING CORNER SOLID IF FOUND - OPEN IF NOT FOUND)
	CLOSING CORNER
	MEANDER CORNER
	OWNERSHIP TIE
	PROPERTY CORNER
	EXISTING R/W MONUMENT
	NEW R/W MONUMENT
	PROPERTY LINE
	SECTION LINE
	EXISTING ACCESS
	FULL ACCESS CONTROL
	LIMITED CONTROL
	EXISTING RIGHT-OF-WAY
	HIGHWAY RIGHT-OF-WAY
	RAILROAD RIGHT-OF-WAY
	BASE OR SURVEY LINE
	C OF STAKED LINE WHEN A PROJECTION IS MADE
	RAILROAD
	TRAVELED WAY
	LEVEE OR DIKE (CADD *)
	RETAINING WALL (CADD *)
	PROPOSED RETAINING WALL (CADD *)
	RIPRAP
	GEOTEXTILE PATTERN
	CONCRETE SIDEWALK
	CONCRETE CURB
	EXISTING FENCE
	PROPOSED FENCE
	SNOW FENCE
	PROPOSED SNOW FENCE
	EXISTING GUARDRAIL
	PROPOSED GUARDRAIL
	EXISTING CONCRETE MEDIAN RAIL
	SMALL DRAINAGE
	LARGE DRAINAGE
	RESERVOIR WITH DAM
	LAKE
	MARSH, SWAMP (CADD *)

PLAN

	BLUFFS OR CLIFFS
	WATER'S EDGE
	DEPRESSION
	DEPRESSION OBSCURE
	DITCH BLOCK
	EXISTING DITCH OR FLOW LINE
	PROPOSED DITCH
	FLOW LINE UP HILL
	CULVERT WITH HEADWALL (IN PLACE)
	CULVERT WITHOUT HEADWALL (IN PLACE)
	PROPOSED CULVERT
	EXISTING DROP OR MEDIAN INLET
	PROPOSED DROP OR MEDIAN INLET
	WATER VALVE BOX
	MANHOLE (LABEL AS TO TYPE OR SERVICE)
	PROPOSED MANHOLE
	FIRE HYDRANT
	WATER WELL
	WELL (CADD *)
	EXISTING CATCH BASIN
	PROPOSED CATCH BASIN
	CONDUIT & WIRING
	POWER CABLE
	EXISTING UNDERGROUND POWER (CADD *)
	EXISTING OVERHEAD POWER (CADD *)
	TELEPHONE OR TELEGRAPH CABLE
	EXISTING UNDERGROUND TELEPHONE (CADD *)
	EXISTING OVERHEAD TELEPHONE (CADD *)
	WATER LINE
	EXISTING WATER LINE (CADD *)
	STORM SEWER
	EXISTING STORM DRAIN (CADD *)
	PROPOSED STORM DRAIN (CADD *)
	SANITARY SEWER
	EXISTING SANITARY SEWER (CADD *)
	PROPOSED SANITARY SEWER (CADD *)
	NATURAL GAS LINE
	EXISTING NATURAL GAS LINE (CADD *)
	GASOLINE OR OIL LINE
	EXISTING GAS PIPE LINE (CADD *)
	EXISTING OIL PIPE LINE (CADD *)
	EXISTING UNDERGROUND FIBER CABLE (CADD *)
	EXISTING UNDERGROUND TV CABLE (CADD *)
	EXISTING UNDERGROUND MISSILE CABLE (CADD *)

PLAN

	SINGLE POST SIGN
	MULTIPLE POST SIGN
	TELEGRAPH POLE
	TELEPHONE POLE
	TELEPHONE PEDESTAL
	POWER POLE
	POWER PEDESTAL
	TROLLEY POLE
	LIGHT POLE
	GUY POLE
	GUY WIRE & ANCHOR
	TRANSMISSION TOWER
	GAS VALVE
	OIL OR GAS WELL
	TANKS
	TREE OR BUSH
	TREE LINE
	HEDGE LINE
	MAILBOX
	EXISTING APPROACH
	PROPOSED APPROACH
	EXISTING CATTLE GUARD
	PROPOSED CATTLE GUARD
	GRAVEL PIT
	SCALES
	MILE POST
	PROJECT MARKER
	STATION MARKER
	CENTERLINE
	DEFLECTION ANGLE
	DEFLECTION ANGLE (CIRCULAR CURVE WITH SPIRALS)
	DEFLECTION ANGLE OF ONE SPIRAL
	NORTH ARROW
	GATE

* SYMBOLOGY USED ON CADD DRAFTED PLANS

DETAILED DRAWING	
REFERENCE	DWG. NO.
STANDARD SPEC.	101-10
SECTION 101	
SYMBOLS	
EFFECTIVE: AUGUST 1999	
	MONTANA DEPARTMENT OF TRANSPORTATION
	CADD